To: Fish, Kim (DEQ)[FISHK@michigan.gov]; Pennington, Michael

(DEQ)[PENNINGTONM@michigan.gov]; Lounds, Amy (DEQ)[LOUNDSA@michigan.gov]; Okeefe, Colleen (DEQ)[OKEEFEC@michigan.gov]; Pennala, Virginia (DEQ)[PENNALAV@michigan.gov]

Cc: Burdick, Melanie[Burdick.Melanie@epa.gov]; Hansen, Linda

(DEQ)[HansenL6@michigan.gov]; Maki, Joe (DEQ)[MAKIJ3@michigan.gov]; Van Dyke, Jill

(DEQ)[VandykeJ1@michigan.gov] **From:** Wilson, Kristina (DEQ) **Sent:** Fri 9/1/2017 10:14:42 PM

Subject: Summary of September 1 Back Forty Meeting

MDEQ met with Aquila Resources to discuss the upcoming Back Forty response to the January 26, 2017 Correction Request. In attendance were Barry Hildred, Chantae Lessard, and David Anderson of Aquila Resources, Jeff King, King & MacGregor, Ginny Pennala and Kristi Wilson, MDEQ. On the phone were Colleen Okeefe, MDEQ, Melanie Burdick, EPA, and Steve Donahue, Mitch and Mike of Foth.

Aquila provided access to a draft submission document to MDEQ and EPA for their review prior to the meeting. Due to the limited review timeframe, MDEQ was unable to complete a thorough review of the draft materials.

The discussion was opened by Barry Hildred who provided background on the work that has been completed by Foth's engineering department to evaluate the feasible and prudent alternatives. Through the engineering and design process, the applicant has determined a static site design that meets the requirements of the Part 632 permit conditions and the goals of avoiding and minimizing wetland impacts under Part 303. During the process of revising the site plan, Aquila acquired an additional 200 acres of property on the eastern boundary of the previous project area. This acquisition provided for site plan alternatives that expand east and south to minimize regulated resource impacts. With the issuance of the 632 permit, the project has moved into feasibility and the site plan has experienced greater definition of engineering design so what is anticipated with the application submission will be the final project layout/impacts. (11.42ac direct dredge and fill, 6.09ac direct hydrological impact, 11.4ac indirect watershed reduction: 28.9 ac total proposed)

Some discussion has previously been given to the potential for piecemealing applications/ project impacts due to the consideration of a future underground mining venture. Aquila confirmed that, at this time, any future underground component is highly unlikely and speculative.

The majority of the meeting was spent in detailed discussion of the indirect impacts analysis.

Specifically, Foth presented information on the wetland watershed modeling that is highlighted in the draft submission that accounts for impacts to wetland watershed budgets. It was unclear what impacts pit dewatering would have on wetland watersheds that were modeled using the Darcy Law Equation, which was used to create watershed models of the smaller "upland" wetlands onsite. The larger "valley bottom" wetlands were modeled using Modflow and should show the relation of seasonal fluctuation, surface watershed reductions, and drawdown impacts. Some additional refinement to these models will be presented and detailed in the submission.

Brief discussion was made on the Mitigation plan. MDEQ encouraged Aquila to engage on discussions with potential third-party stewards that may be available to enact the long-term management plan required with the proposed mitigation. The current mitigation plan includes 294.4 ac wetland and 213.5 ac upland for a total mitigation parcel of 508 ac. Stream restoration and preservation is included in the proposal.

Additional discussion was primarily limited to a few questions that came up while reviewing the previous draft submission, including hydrostatic engineering on the cutoff wall during flood events. Foth will be providing greater detail in the cutoff wall memorandum that addresses the engineering studies on the cutoff wall and will ensure that the studies contain the revised 100-year flood elevation data.

The meeting concluded with a detailed discussion on timelines of the administrative processing procedures under Parts 303, 301 and 31. Clarification was made to the applicant that unlike the Part 632 application, under Part 13, the processing period for this application may not be tolled once the application is determined to be administratively complete. Aquila anticipates that a submission will be made by October 1.

Please let me know if you have any further questions.

Kristi Wilson

DEQ, Water Resources Division

1504 W Washington Street

Marquette, MI 49855

906-236-0380